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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,092	02/26/2002	Timothy J. Clemens	56471US010	8110

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EXAMINER	
FEELY, MICHAEL J	

ART UNIT	PAPER NUMBER
1712	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,092	CLEMENS ET AL.	
	Examiner	Art Unit	
	Michael J. Feely	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,7,12-18,24,29 and 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,7,12-18 and 24* is/are rejected.

7)☒ Claim(s) *29 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0805*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

Claims 1, 5, 7, 12-18, 24, 29, and 30 are pending.

Previous Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The rejection of claims 6 and 8-11 under 35 U.S.C. 112, first paragraph, has been rendered moot by the cancellation of these claims

3. The rejection of claims 1, 5, 7, 12-18, 24, 29, and 30 under 35 U.S.C. 112, first paragraph, has been overcome by amendment.

Previous Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. The rejection of claim 6 under 35 U.S.C. 102(e) as being anticipated by Kitahara et al. (US Pat. No. 6,372,870) has been rendered moot by the cancellation of this claim.

6. The rejection of claims 1, 13, 24, and 30 under 35 U.S.C. 102(e) as being anticipated by Kitahara et al. (US Pat. No. 6,372,870) has been overcome by amendment.

Previous Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. The rejection of claims 6, 10, and 11 under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US Pat. No. 6,372,870) has been rendered moot by the cancellation of these claims.

9. The rejection of claims 5, 7, and 29 under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US Pat. No. 6,372,870) has been overcome by amendment.

10. The rejection of claims 8 and 9 under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US Pat. No. 6,372,870) in view of Hoyle et al. (WO 99/64235) has been rendered moot by the cancellation of these claims.

11. The rejection of claims 13-18 under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US Pat. No. 6,372,870) in view of Hoyle et al. (WO 99/64235) has been overcome by amendment.

12. The rejection of claim 12 under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US Pat. No. 6,372,870) in view of Rinde et al. (US Pat. No. 5,470,662) has been overcome by amendment.

New Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14-18 are dependent from claim 9; however claim 9 has been cancelled. It appears that these claims should be dependent from claim 13.

New Claim Rejections - 35 USC § 103

15. Claims 1, 5, 13-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badesha (US Pat. No. 5,337,129).

Regarding claims 1, 5, and 13-17, Badesha discloses: ***(1)*** a protective article (Abstract: *inherently "protective" due to the materials used*) comprising: (a) a backing comprising a terpolymer of tetrafluoroethylene, hexafluroropropylene, and vinylidene fluoride (Abstract; column 5, lines 40-55); and an adhesive layer on at least one surface (column 12, lines 36-53), wherein the at least one surface is un-etched *(reference is silent regarding an etched surface)*;

(13) the protective article of claim 1 bonded to a substrate (Abstract; column 12, lines 36-53); ***(14)*** wherein the substrate is selected from the group consisting of painted surfaces, primed surfaces, metallic surfaces, ceramics, cured and un-cured composite surfaces, fluorinated polymer surfaces, plated surfaces, galvanized surfaces and combinations thereof (column 12, lines 31-35); ***(15)*** wherein the substrate to which it is bonded comprises an aluminum surface (column 12, lines 11-15 and 31-35); ***(16)*** wherein the substrate to which it is bonded comprises a fluoropolymer that is not perfluorinated (column 11, line 67 through column 12, line 11; column 12, lines 31-35); and ***(17)*** wherein the substrate to which it is bonded comprises a cured resin (column 12, lines 31-35).

Regarding claim 24, Badesha discloses: ***(24)*** a method of providing an article having a fluorinated polymer surface (Abstract) comprising the steps of: (a) contacting a surface of the article with a curable adhesive (column 12, lines 36-53); (b) contacting a backing comprising a terpolymer of tetrafluoroethylene, hexafluroropropylene, and vinylidene fluoride (Abstract;

column 5, lines 40-55) with the curable adhesive (column 12, lines 48-53) and (c) curing the curable adhesive (column 12, lines 48-53).

Badesha does not explicitly disclose: ***(1)*** a heat, moisture, or UV light curable thermoset adhesive that is non-tacky after cure and ***(1 & 24)*** comprises (chloromethyl)oxirane, 4,4'-(1-methylethylidene) bisphenol copolymer *(bisphenol-A type epoxy resin)*; and ***(5)*** *wherein the curable adhesive layer is curable at ambient temperature.*

Rather, Badesha discloses, "In embodiments, the intermediate transfer component is fabricated with one or more intermediate layers between the ceramer/grafted ceramer and the substrate. *It is preferred that a single intermediate layer of an adhesive is employed* in an effective amount where the intermediate layer may have a thickness ranging for example from about 0.1 mil to about 3 mils thick, and more preferably from about 1 mil to about 2 mils thick. Examples of adhesives include: THIOXON 403/404 ™ and THIOXON 330/301 ™ both available from Morton International of Ohio; a silane coupling agent such as Union Carbide A-1100 which is an amino functional siloxane; *epoxy resin including bisphenol A epoxy resins* available for example from Dow Chemical Company such as Dow TACTIX 740 ™, Dow TACTIX 741 ™, and Dow TACTIX 742 ™, and the like, *optionally with a crosslinker or curative* such as Dow H41 available from the Dow Chemical Company," (column 12, lines 36-53).

Furthermore, it should be noted that: bisphenol-A epoxy resins are inherently *capable* of being cured at ambient temperature conditions; and they would have inherently been non-tacky after curing due to their fully cured thermosetting nature.

Therefore, it would have been obvious to one of ordinary skill in that art at the time of the invention to use *a heat, moisture, or UV light curable thermoset adhesive that is non-tacky after cure and comprises (chloromethyl)oxirane, 4,4'-(1-methylethylidene) bisphenol copolymer* in the composite article of Badesha because he preferably uses an intermediate layer that is selected from a group of adhesives including bisphenol A epoxy resins.

16. Claims 1, 5, 13-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badesha et al. (US Pat. No. 5,576,818).

Regarding claims 1, 5, and 13-17, Badesha et al. disclose: ***(1)*** a protective article (Abstract: *inherently "protective" due to the materials used*) comprising: (a) a backing comprising a terpolymer of tetrafluoroethylene, hexafluroropropylene, and vinylidene fluoride (Abstract; column 4, lines 27-41); and an adhesive layer on at least one surface (column 8, lines 44-58), wherein the at least one surface is un-etched *(reference is silent regarding an etched surface)*;

(13) the protective article of claim 1 bonded to a substrate (Abstract; column 3, line 49 through column 4, line 15); ***(14)*** wherein the substrate is selected from the group consisting of painted surfaces, primed surfaces, metallic surfaces, ceramics, cured and un-cured composite surfaces, fluorinated polymer surfaces, plated surfaces, galvanized surfaces and combinations thereof (column 4, lines 11-15); ***(15)*** wherein the substrate to which it is bonded comprises an aluminum surface (column 3, lines 60-64; column 4, lines 11-15); ***(16)*** wherein the substrate to which it is bonded comprises a fluoropolymer that is not perfluorinated (column 3, lines 49-60;

column 4, lines 11-15); and ***(17)*** wherein the substrate to which it is bonded comprises a cured resin (column 4, lines 11-15).

Regarding claim 24, Badesha et al. disclose: ***(24)*** a method of providing an article having a fluorinated polymer surface (Abstract) comprising the steps of: (a) contacting a surface of the article with a curable adhesive (column 8, lines 44-58); (b) contacting a backing comprising a terpolymer of tetrafluoroethylene, hexafluroropropylene, and vinylidene fluoride (Abstract; column 4, lines 27-41) with the curable adhesive (column 8, lines 53-58) and (c) curing the curable adhesive (column 8, lines 53-58).

Badesha et al. do not explicitly disclose: ***(1)*** a heat, moisture, or UV light curable thermoset adhesive that is non-tacky after cure and ***(1 & 24)*** comprises (chloromethyl)oxirane, 4,4'-(1-methylethylidene) bisphenol copolymer *(bisphenol-A type epoxy resin)*; and ***(5)*** *wherein the curable adhesive layer is curable at ambient temperature.*

Rather, Badesha et al. disclose, "*The first adhesive layer and the second adhesive layer may be the same or different composition,* and may have a thickness ranging for example from about 0.1 mil to about 3 mils thick, and more preferably from about 1 mil to about 2 mils. Examples of adhesives include: THIOXON 403/404 ™ and THIOXON 330/301 ™ both available from Morton International of Ohio; GE-2872-074 ™ available from the General Electric Company; a silane coupling agent such as Union Carbide A-1100 which is an amino functional siloxane; *epoxy resin including bisphenol A epoxy resins* available for example from Dow Chemical Company such as Dow TACTIX 740 ™, Dow TACTIX 741 ™, and Dow TACTIX 742 ™, and the like, *optionally with a crosslinker or curative* such as Dow H41 available from the Dow Chemical Company," (column 8, lines 44-58).

Furthermore, it should be noted that: bisphenol-A epoxy resins are inherently *capable* of being cured at ambient temperature conditions; and they would have inherently been non-tacky after curing due to their fully cured thermosetting nature.

Therefore, it would have been obvious to one of ordinary skill in that art at the time of the invention to use *a heat, moisture, or UV light curable thermoset adhesive that is non-tacky after cure and comprises (chloromethyl)oxirane, 4,4'-(1-methylethylidene) bisphenol copolymer* in the composite article of Badesha et al. because they preferably use an intermediate layer that is selected from a group of adhesives including bisphenol A epoxy resins.

17. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badesha (US Pat. No. 5,337,129) or Badesha et al. (US Pat. No. 5,576,818) in view of Giroux et al. (Pub. No.: US 2002/0117259).

Badesha and Badesha et al. both disclose the use of curing agents with a bisphenol A epoxy resin; however, they fail to disclose the specific curing agents set forth in claims 7 and 12.

Giroux et al. disclose an epoxy-based composition that is curable at room temperature with amine-based curing agents (Abstract). The epoxy resins include bisphenol A epoxy resins (paragraphs 0019-0020), and the amine curatives include materials set forth in claims 7 and 12 (paragraphs 0060-0074). The teachings of Giroux et al. demonstrate the curatives set forth in instant claims 7 and 12 are recognized in the art as suitable curatives for room temperature curable compositions based on bisphenol A epoxy resins.

In light of this, it has been found that the selection of a known material based on its suitability for intended use supports a *prima facie* obviousness determination – *see MPEP 2144.07.*

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the curing agents set forth in instant claims 7 and 12, as taught by Giroux et al., in the composition of Badesha or Badesha et al. because the teachings of Giroux et al. demonstrate that these curatives are recognized in the art as suitable curatives for room temperature curable compositions based on bisphenol A epoxy resins.

Allowable Subject Matter

18. Claims 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. Claim 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding claim 18, the teachings of Badesha and Badesha et al. fail to teach or suggest the use of a "vehicle" substrate. Their articles are intermediate toner transfer components.

Regarding claim 29, the teachings of Badesha and Badesha et al. fail to teach or suggest incorporating an anti-corrosion additive in the adhesive layer. They only use additives in the substrate and the fluoro-elastomer layers.

Regarding claim 30, the teachings of Badesha and Badesha et al. fail to teach or suggest a patterned backing (fluoro-elastomer) layer.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Feely
Primary Examiner
Art Unit 1712

February 6, 2006

MICHAEL FEELY
PRIMARY EXAMINER